

# AQUA TURBO®

## FLOATING OR FIXED SURFACE AERATOR

### Series AER-AS, AER-F or AER-FES

The AQUA TURBO® gained recognition world-wide as a surface aerator with high performance in real life conditions, built to an astonishingly simple design.

The AQUA TURBO® functions as an open pump. The mixed liquor of wastewater and activated sludge enters via the suction cone. The unique AQUA TURBO® SCREWPELLER® pumps the liquid axially up through the cylindrical pumphouse, bends the liquid flow from axial to radial, and ensures that the kinetic energy is transferred to the water surface.

The SCREWPELLER® is designed to transfer the kinetic energy to the water whilst achieving high performance in pumping and oxygen transfer. Due to the design of the SCREWPELLER®, the



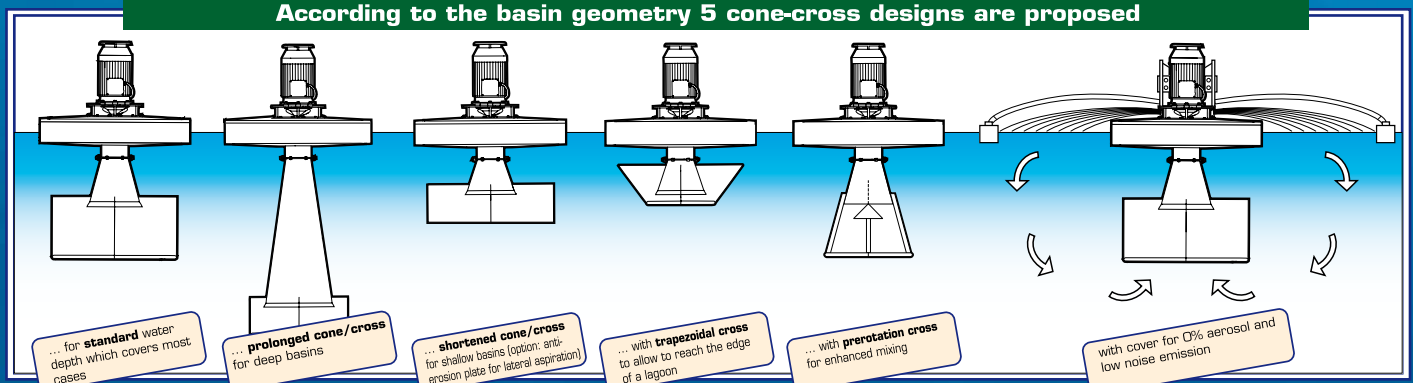
forces on the bearings are very low, so standard bearings can be used.

AQUA TURBO® achieves a low energy consumption because of the high oxygen transfer that it produces in steady state or real working conditions.

Compared to other aeration systems, the AQUA TURBO® offers many important advantages :

- low investment cost for the complete installation
- simple and quick installation
- high oxygen transfer efficiency
- maintenance is limited to one or two lubrications a year.

According to the basin geometry 5 cone-cross designs are proposed



Cone cross assemblies may also be valid for AER-FES

**ALL POSSIBLE APPLICATIONS LIKE SBR'S, MBR'S, LAGOONS, DITCHES**



**FLUCTUATING WATERLEVELS**

**MOORING WITH GUIDING TUBES**



**MOORING WITH PIVOTING ARM**

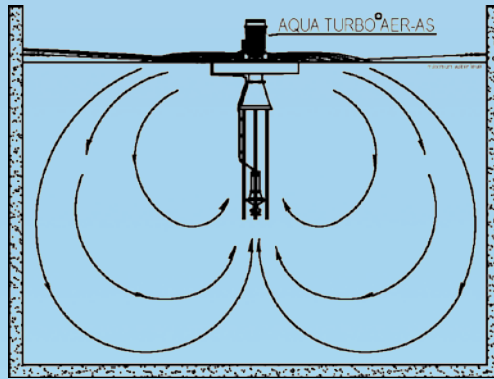


**MOORING WITH SPRINGS**

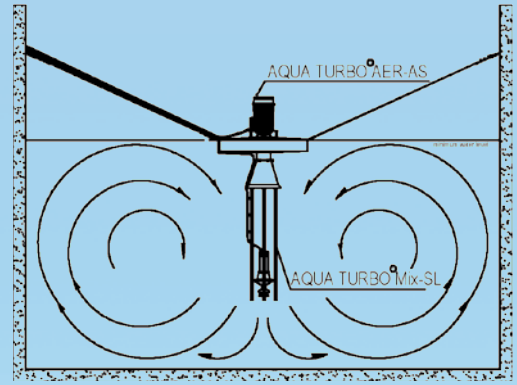


# AQUA TURBO<sup>®</sup> AER-AS/MIX-SL COMBINED AERATOR/MIXER

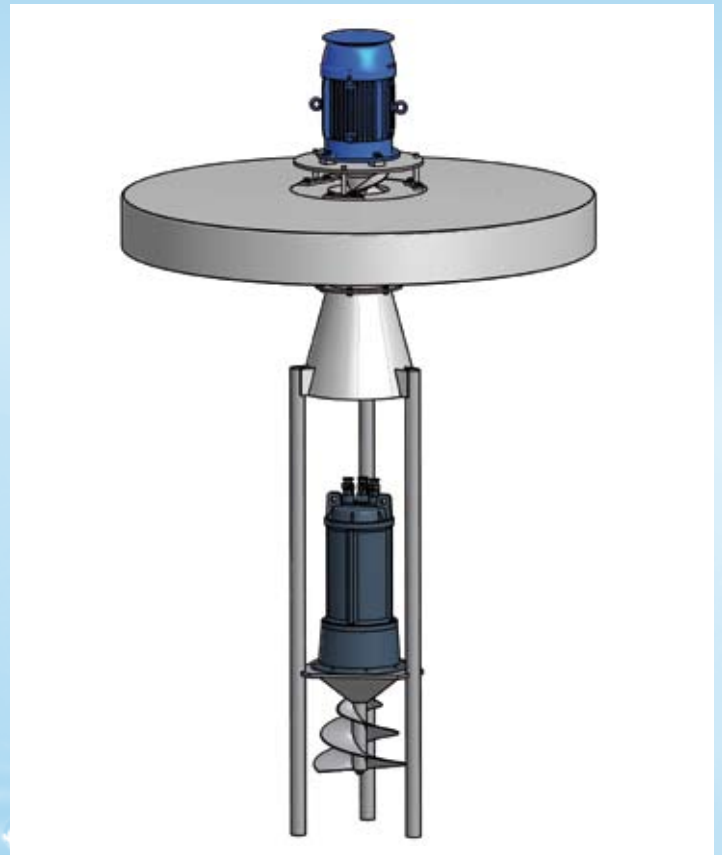
Allows separate mixing without aeration and excellent oxygen regulation



Nitrification



Denitrification



## SPLASH AND NOISE PROTECTION



Spray and heat deflector



Cover

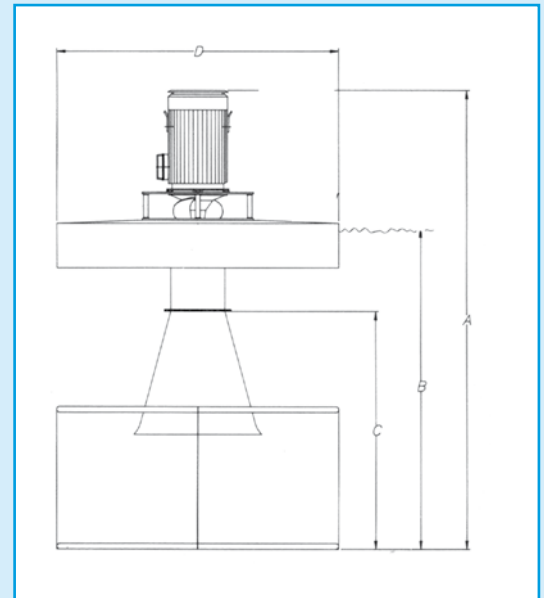
## DENOMINATION

Productname AQUA TURBO®

- AS: Floating aerator, motor above surface  
 F: Fixed mounted surface aerator  
 FES: Fixed mounted surface aerator with extended shaft

- Motor power kW x 100
- 24 = 1500 rpm [4 poles] [50Hz]  
 16 = 1000 rpm [6 poles] [50Hz]  
 12 = 750 rpm [8 poles] [50Hz]  
 24/16 or 16/12 : dual speed

AER-AS 0550 - 24



## MATERIALS

- Motorhousing : cast iron GG 25 epoxy coated
- Float + cone/cross : stainless steel AISI 304
- Flange support : stainless steel AISI 304
- **SCREWPELLER®** : stainless steel AISI 304  
 (other materials and coatings on request)

TYPE (kW)	Motor Power	Speed RPM	Total Standard Height (A)	Standard Draught (B)	Standard Height Cone+Cross (C)	Float Diameter (D)	Mass kg
<b>Series 24</b>							
AER-AS 0075-24	0.75	1410	1286	890	660	1000	102
AER-AS 0110-24	1.1	1410	1307	890	645	1000	112
AER-AS 0150-24	1.5	1410	1364	925	680	1000	120
AER-AS 0220-24	2.2	1425	1364	890	615	1000	131
AER-AS 0300-24	3	1415	1416	940	655	1000	137
AER-AS 0400-24	4	1435	1534	1030	705	1000	161
AER-AS 0550-24	5.5	1430	1711	1146	840	1250	217
AER-AS 0750-24	7.5	1430	1878	1251	915	1250	244
AER-AS 1100-24	11	1455	2007	1296	960	1500	351
AER-AS 1500-24	15	1460	2214	1431	1030	1500	369
AER-AS 1850-24	18.5	1470	2447	1614	1218	2000	494
AER-AS 2200-24	22	1470	2605	1764	1348	2000	514
AER-AS 3000-24	30	1475	2943	2031	1595	2000	660
AER-AS 3700-24	37	1480	2935	1966	1530	2000	759
AER-AS 4500-24	45	1776	3041	2066	1600	2000	790
AER-AS 5500-24	55	1475	3393	2200	1720	2390	1062
<b>Series 16</b>							
AER-AS 0550-16	5.5	955	1902	1256	870	1500	315
AER-AS 0750-16	7.5	970	2080	1346	930	1500	366
AER-AS 1100-16	11	970	2400	1551	1115	1500	435
AER-AS 1500-16	15	975	2503	1655	1185	2000	548
AER-AS 1850-16	18.5	980	2858	1945	1465	2000	675
AER-AS 2200-16	22	980	2909	1990	1490	2000	696
AER-AS 3000-16	30	985	3099	2060	1540	2390	933
AER-AS 3700-16	37	985	3228	2160	1620	2390	1052
AER-AS 4500-16	45	990	3473	2215	1665	2390	1381
AER-AS 5500-16	55	990	3626	2350	1760	2390	1451
AER-AS 7500-16	75	992	4129	2725	2115	2390	1942
AER-AS 9000-16	90	992	4327	2910	2270	3000	2046
AER-AS 11000-16	110	991	4237	2810	2140	3000	2296
AER-AS 13200-16	132	991	4334	2855	2165	3000	2541
<b>Series 12</b>							
AER-AS 3700-12	37	741	3595	2295	1655	2390	1511
AER-AS 4500-12	45	741	3675	2365	1705	2390	1755
AER-AS 5500-12	55	740	4422	3010	2320	3000	2144
AER-AS 7500-12	75	740	4692	3240	2480	3000	2189
AER-AS 9000-12	90	740	4730	3275	2495	3000	2384
AER-AS 11000-12	110	740	4873	3350	2545	3000	2584
AER-AS 13200-12	132	742	5188	3515	2690	3000	3862
AER-AS 16000-12	160	742	5515	3801	2861	3500	4743

All values are indicative. Aquasystems International NV reserves the right to adjust these values at any time  
 The AER-FES measures are depending on the distance bridge to waterlevel

STUDIO DEWIT • 5/2008

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